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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/995,814

11/29/2001

Shuji Doi

Q67430

9735

7590 08/04/2008
SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/995,814	Applicant(s) DOI ET AL.	
	Examiner Marie R. Yamnitzky	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. This Office action is in response to applicant's amendment filed June 05, 2008, which amends claims 1, 6 and 7.

Claims 1 and 6-17 are pending.

2. The rejections of claims 1 and 6-17 under 35 U.S.C. 103(a) as unpatentable over Shi et al. (US 6,361,887 B1) and as unpatentable over Noguchi et al. (EP 1 043 382 A2) are overcome by the amendment to claim 1, which now requires that the amount of repeating units represented by formula (1) be 0.1 mol% or more and 50 mol% or less based on the total amount of repeating units represented by formulae (1) and (8).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uckert et al. (US 7,214,763 B2).

Uckert et al. disclose fluorene copolymers for use in organic electronic devices such as light-emitting devices. The copolymers may be used in the light-emitting layer of the device. For example, see column 7, lines 15-30 and c. 8, l. 32-36.

Uckert's copolymers have at least one first monomeric unit of Formula (I) as shown in Fig. 1, and at least one second monomeric unit selected from those represented by Formulae (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X) or (XI) as shown in Figs. 2 and 6-11. Uckert's Formula (I) provides repeating units of present formula (8) wherein n represents 0. Uckert's Formula (VI) wherein the 2 E's are in the 2,6-positions as taught, for example, at column 2, lines 28-30, provides repeating units of present formula (1) wherein n represents 0.

Substituents within the scope of those defined with respect to present R_1' - R_6' are taught in the prior art. For example, see c. 4, l. 21-38 and c. 6, l. 6-12 and 20-33.

Relative molar proportions for first monomeric unit to second monomeric unit are taught at c. 6, l. 35-39. The most limited range for relative molar proportions that is taught in column 6 provides a range that is almost identical to the range set forth in present claim 1 for the amount of repeating units represented by formula (1) based on the total amount of repeating units represented by formulae (1) and (8). For a copolymer according to Uckert et al. wherein the second monomeric unit consists of a group having formula (VI) and the relative molar proportion of first monomeric unit to second monomeric unit is from 99:1 to 50:50, the amount of repeating units of Uckert's formula (VI) is 1.0 mol% or more and 50 mol% or less based on the total amount of repeating units of Uckert's formulae (I) and (VI).

Uckert et al. do not explicitly limit the molecular weight of the copolymers, but all copolymers provided in Uckert's examples have a number-average molecular weight within the range set forth in present claim 1.

Uckert et al. do not provide a specific example of a copolymer within the scope of the present claims, but the presently claimed polymeric fluorescent substance is within the scope of Uckert's copolymers, and all the limitations of the substance as defined in present claim 1 and further defined in present claims 6 and 7 are taught or suggested by the prior art teachings. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make and use various copolymers within Uckert's guidelines in addition to those of Uckert's examples in order to provide a variety of copolymers suitable for the purposes taught in the prior art.

Devices having the layer structure specified in claim 8 and 9, with claims 11-13 dependent therefrom, are disclosed by Uckert et al. (e.g. see c. 7, l. 15-30 and 63-66 and c. 9, l. 29-41). While the layer required by claim 10, with claims 11-13 dependent therefrom, is not explicitly taught, Uckert et al. teach that other layers may be included in the device structure (e.g. see c. 9, l. 42-51). It would have been within the level of ordinary skill of a worker in the art at the time of the invention to include auxiliary layers based on the properties afforded by those layers.

With respect to present claims 14-17, Uckert et al. teach at c. 1, l. 17-26 that organic electronic devices that emit light, such as those that make up displays, are used in many kinds of electronic equipment. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to utilize light-emitting devices comprising Uckert's light-emitting copolymers in articles which conventionally make use of light-emitting devices.

Uckert's priority provisional application, which was filed May 03, 2001, provides support for the disclosure relied upon in this rejection. Applicant claims priority based on two applications filed in Japan prior to May 03, 2001. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/
Primary Examiner, Art Unit 1794

MRY
August 01, 2008